

# SOUND PRODUCTION SYSTEMS AND METHODS FOR PROVIDING SOUND INSIDE A HEADGEAR UNIT

## ABSTRACT

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Methods for generating a directional sound environment include providing a headgear unit having a plurality of microphones thereon. A sound signal is detected from the plurality of microphones. A transfer function is applied to the sound signal to provide a transformed sound signal, and the transformed sound signal provides an

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approximation of free field hearing sound at a subject's ear inside the headgear unit.